EXECUTIVE SUMMARY

INTRODUCTION

This report summarizes the results of a study to determine the feasibility of the Washington Commerce Corridor (WCC), conceived as a North-South (N-S) alternative to Interstate-5 that facilitates the movement of freight, goods, people, and utilities. The Washington State Legislature directed the study, and required that the evaluation of the WCC's feasibility be based on the willingness and ability of the private sector to build and operate this proposed corridor. The study area begins in the vicinity of Lewis County, extends north to the Canadian border, and contains Interstate 5, the mainline railroads, and major intercity pipeline facilities, which each operate on separate rights-of-way but roughly in the vicinity of Interstate 5 (I-5).

In order to determine feasibility, the WCC Study answered two fundamental questions:

- Is there sufficient demand for the corridor? And;
- Can it be built?

IS THERE SUFFICIENT DEMAND?

The question of demand in the context of this study cuts two ways. The first is the level of interest shown by owners and operators within the transportation and energy sectors. The second is the level of user demand that could generate sufficient revenues to attract a third party developer. The former are most applicable to the modes that have traditionally been within the private realm (utilities, freight rail, etc). The latter is applicable to modes that have traditionally been in the public realm (highways, passenger rail, etc).

Will the Energy Industry Participate in the Development of the Corridor?

The approach used in answering this question was wholly based on interviewing and surveying the major players in this industry. Despite projected growth in energy demand and a declining capacity to accommodate that growth, we found little evidence to support involvement of the energy sector in the development of the WCC, at this time. This conclusion is based upon four fundamental factors:

1. **Distribution Patterns** – Uncertainty in the long-term direction and pattern of distribution and transportation of energy in the region and the nation;
2. **Differing Planning Horizons** - The long term planning horizon for the energy industry is around five years (up to 10 years at most), which is not consistent with the long term outlook for this WCC project;
3. **Location of the Corridor** - The location of this corridor is not consistent with the location of future major corridors that the industry anticipates will occur. The consensus is that future N-S energy distribution, particularly of an interstate and international nature, will likely occur to the east of the current WCC alignment, if at all in Washington State;

4. **Risk for the Public Sector** - 60-80 percent of the costs associated with the development of the energy component consist of right-of-way acquisition. Assembling the right-of-way could be a legitimate role for government if the corridor were to be developed. However, the risk associated with government paying such a large share of the total cost is great, and there is a low probability of the public ever being fully reimbursed for the ROW.

Finding - Despite continued growth in energy demand and a declining capacity to accommodate the growth, there is no significant desire on the part of the energy sector to get involved in the development of the WCC. However, the Foothills Energy Corridor Study[1] makes several policy level recommendations for planning the development of future energy corridors in the State of Washington that should be taken into consideration by policy makers. The most important recommendation is to create a single entity responsible for both the development of a statewide energy infrastructure strategy and its implementation.

Will the Private Sector Participate in the Development of the Transportation Components of the Corridor?

The study evaluated whether evidence exists that users of the transportation corridor would generate sufficient revenue to fund construction of the WCC.

Passenger Rail Service - The development of passenger rail service is a priority in Washington State and the Puget Sound Region. The greatest demand for passenger rail service is N-S, as is the WCC. However, passenger rail service does not contribute to the financial feasibility of the WCC. This is primarily based on the fact that passenger rail service relies heavily on public subsidy. Average fare box recovery for passenger rail service in the U.S. ranges between 30 and 60 percent of operational costs; the rest is subsidized. As a result, the private sector does not typically contribute significant financial resources towards the development of passenger rail service, nor does the private sector typically receive user fees or toll revenue from passenger rail service. The exception is where the private sector makes ROW contributions, provides in-kind services, or receives revenues for trackage rights. And while there are private sector entities that operate rail services on behalf of public agencies, or control the routing of trains according to schedules, private sector involvement is not as the leading investor and financial sponsor. This is almost exclusively a government role. Therefore, despite evidence that N-S passenger rail service will be developed in the region, passenger rail would not contribute to the financial feasibility of the WCC.

Freight Rail Service - Freight rail service is almost exclusively a private sector business in the United States. Significant portions of the WCC study area follow existing freight rail infrastructure, so we evaluated the feasibility of the private sector playing a role in developing the freight rail component of the WCC. The investment plans of the two major railroads (BNSF and UP) are focused on East-West mainlines that serve their largest business lines and customer base. Barring any major change, these customers will continue to be the priority for the freight lines. Improvement in North-South capacity is a low priority for the railroads, with the exception of the segments through the congested urban centers between Tacoma and Everett. Mainline capacity issues in these urban segments are mostly related to balancing freight capacity with intercity

[1] Van Ness Feldman, August 2004

passenger services, the latter being largely a public priority. Given these facts, it is clear that private railroad investment is not a feasible option to drive the development of the WCC.

Car Tolls - Tolls have been used to fund major road construction projects from the onset of the growth in popularity of the automobile, and have been used when public agencies do not have the resources to finance the facilities. Toll roads are typically developed as public-private ventures where the private sector is asked to play a variety of roles.

Three major factors present obstacles to car tolls financing the development of the WCC. First, the densest traffic levels along the entire I-5 corridor are between Tacoma and Seattle, as well as south toward Olympia and north toward Everett. However, the trips along these congested segments are short and are not consistent with the long haul nature of the WCC. Second, the WCC bypasses the major urban and suburban centers with the densest traffic patterns (that would be the primary target for diversion to the WCC), minimizing the amount of potential traffic that can be diverted. Third, jurisdictions along the I-5 corridor all have published plans to improve transportation service along the I-5 corridor. The prospect of improved transportation service on I-5, particularly in the urban core where the bulk of the auto traffic exists, may have a negative impact on the financial feasibility of car tolls along the WCC.

Truck Tolls - Our analysis indicates that the trucking component of the WCC has a basis for further exploration. A preliminary evaluation of truck trips on I-5 corridor indicates sufficient volume in some sections to fit the characteristics of the WCC. The trip characteristics are long haul in nature. In comparison to auto trips that cluster around urban centers, a larger share of truck trips are long haul through the Puget Sound region and would benefit from a by-pass around the region. The trucking sector, as a whole, would support improvements in N-S mainline capacity. As compared to the energy sector, the trucking industry supports immediate and significant N-S improvements in capacity, but only for efforts that lower their transport costs along the I-5 corridor, increase productivity (the number of deliveries per day) and improve service to their customers.

Although preliminary revenue estimates produced by this study indicate that truck tolls alone could not fully fund the WCC, a sizeable share of the cost of the southern segments of the corridor may be supported by tolls in combination with a public subsidy. The truck segment of the WCC with the greatest potential for feasibility is the segment between Chehalis and I-90. Financial feasibility is highly dependent on limiting costs by constructing a two-lane alternative (with a third passing lane) as opposed to a traditional four-lane alternative. It would require a diversion rate of greater than 50 percent of all through truck trips, and a high-end toll rate under current market conditions. A parallel route for trucks could have the added benefit of reducing traffic and congestion on I-5.

Finding – The passenger rail component is largely a public role and does not fit the private funding feasibility hurdle for the WCC. Traffic patterns associated with both the auto and freight rail components do not fit the long haul, N-S orientation of the WCC and do not present a feasible option for the WCC. Truck tolls may present sufficient revenue generation opportunities that in combination with public subsidies would support the feasibility of a public-private funded truck corridor between I-90 and Chehalis.

CAN THE CORRIDOR BE BUILT?

In determining whether the corridor can be built, three aspects were evaluated. First, an evaluation of the environmental and community impacts of the corridor was conducted. Second, an estimate of the cost to engineer, design and construct the corridor was developed. Third, legal, financial and legislative issues surrounding the use of private sector resources were evaluated.

What are the Environmental and Community Impacts?

The potential corridor area identified for testing the project's feasibility for the study is five miles wide; this represents a footprint over 35 times the width of the actual maximum alignment width of 710 feet. The larger study area allowed the consultant team to identify most resources and communities that could be affected, and to provide options and flexibility in locating an alignment within the corridor that would decrease the impact to a given resource or area. Beneath this corridor footprint lie abundant natural resources that will influence the overall feasibility of the corridor.

Natural Constraints – To determine the influence of natural resources on the overall feasibility of the WCC, specific natural constraints were evaluated: streams, wetlands, priority habitat, landslide hazards, seismic hazards, and wildlife refuges. If the WCC was constructed, the magnitude of natural constraints in and around the corridor could be significant, depending on the type of resource. Environmental impacts on species habitat and migration corridors could be substantial, and for some resources could significantly degrade or threaten the resource. Direct impacts to environmental resources would likely exist in the short-term, but some resources could be affected following post-construction, over the long term, and some could be considered permanent. It is likely that some segments of the WCC alignment, as currently defined, would require major environmental mitigation efforts, and some segments may even be considered as infeasible following more detailed analysis.

Fatal Flaw - The alignment option through the Cedar River Watershed, which supplies the drinking water to approximately 1.3 million people in the Seattle area, is not feasible. Any mitigation efforts and costs would outweigh any potential benefits the WCC may offer. The selection of an alternate route, such as the one located to the west of the watershed, would be necessary.

Potential Community Issues - The WCC would have both positive and negative impacts on the socioeconomic fabric of nearby communities in western Washington. Potential community issues that the project may encounter include: loss of a sense of place, loss of community fabric, dislocation and other quality of life concerns. The WCC could create opportunities for economic development. Industry will be attracted to the project study area over other locations elsewhere in Washington and the Pacific Northwest. The study-area could gain a greater share of national industry with development of the commerce corridor, creating a significant level of new jobs and new businesses.

Regulatory and Land Use Issues – While much of the study area is classified as land where significant growth could occur, there would need to be extensive changes to the current zoning regulations in these areas. Additionally, significant modifications to current county and local comprehensive plans and specific land use patterns would need to occur at multiple locations

throughout the corridor, resulting in long-term and likely permanent impacts on zoning classifications and land uses. With respect to the 13 planning goals under the Growth Management Act (GMA), the impact of the WCC is mixed. The WCC will not meet those GMA planning goals that address the need to locate urban growth in areas served by existing facilities without significant changes to regional and local comprehensive plans. On the other hand, the WCC would certainly be consistent with the GMA goal to develop multi-modal transportations systems for the state of Washington.

Environmental Review and Permitting - The current environmental review framework in Washington is based on the State Environmental Policy Act (SEPA) and the National Environmental Policy Act (NEPA) for projects that receive federal funds, and many projects require approval from both state and federal agencies. There are numerous agencies responsible for environmental permitting in Washington, and the permit process is unique to each agency and permit. At a minimum, permitting the entire WCC under the existing framework would include over 30 types of state and federal permits normally required for a transportation project, highlighting the complex nature of permitting major projects. As a result of the WCC's multiple components such as rail, highway, pipeline, transmission lines, current review methods would create a fragmented approach, increasing project delays and costs for those involved.

Finding – The current alignment of the WCC has significant natural constraints, will impact several small rural and agriculture based communities, and has potential fatal flaws, specifically for segments of the corridor that impact small and rural agricultural communities, and those segments that have long term impacts on species habitats and watershed areas. Regulatory and land use issues also present a key obstacle in that communities may need to modify their comprehensive plans. Moreover, existing environmental review processes in Washington, although functional, are currently not equipped to handle a project of this scope, and pose significant pre-construction risk for the private sector. These factors combine to significantly undermine the feasibility of the WCC at this time.

What Will The Corridor Cost?

Based on our evaluation of probable project costs, the Washington Commerce Corridor could be implemented for between $42 billion and $50 billion. The most cost effective approach is to use as much of the existing rail infrastructure as is available, saving approximately $1 billion over the baseline option of $42.8 billion. The most expensive option is to by-pass part of the Mt. Baker Snoqualmie National Forest, requiring approximately 16 miles of tunneling and causing the cost to jump by $6.7 billion. The ROW costs represent approximately 40 percent of total costs, with a higher disproportionate share required for utilities.

The roadway components contribute 70 percent of the total costs of the corridor (35 percent each for the truck and general purpose components). Rail contributes between 11 and 17 percent of the total cost, depending on the alternative. The alternative using existing rail infrastructure is the most favorable, while the alternative requiring considerable tunneling is the least favorable. The energy (power and pipeline) component contributes between 10 and 14 percent. Trails contribute the lowest share of the total cost, approximately three percent.

When comparing the various modal contributions toward ROW and construction costs, there are some important differences.

- While the roadway components contribute a 35 percent share each (truck and general purpose) towards overall costs, their relative contribution toward construction costs are greater (40 percent) than towards ROW (30 percent).
- The same effect exists for rail – a 12-20 percent relative share toward construction and 8-10 percent relative share toward ROW.
- The energy components have an opposite effect – while they only contribute 2-4 percent toward construction costs, they contribute 25 percent toward ROW costs.
- The trail component contributes less than 1 percent towards construction costs but 7 percent towards ROW costs.

These distinctions have an impact on the various roles of the private sector versus the public sector. For example, if government assumed the cost of the right of way and recouped the facilities costs through a user fee, the transportation components would present the greatest share return due to their relatively higher contribution toward construction costs. On the other hand, the energy components present the least opportunity of recouping the public's costs.

Finding – The costs associated with developing the WCC are significant and undermine the feasibility of a wholly private sector approach to the WCC. Moreover, the sheer cost of the corridor greatly undermines the feasibility of a private sector entity "bundling" all of the modes into a single corridor, even if the funding is to be generated from a limited share of the users of the corridor. The best way to improve feasibility, from a cost standpoint, is to reduce the scale and size of the corridor and target only the components most likely to generate revenues.

What are the Legal and Institutional Issues?

The use of public-private partnerships is recommended for, if not essential to the success of, the WCC. Public-private partnerships are innovative collaborations between the public and private sectors that expand on traditional private sector participation in project design, financing, operation, and maintenance. Precedent for developing the WCC under a public-private scenario does exist; in the State of Washington, the Secretary of Transportation has general public-private partnership authorization under the provisions of current legislation. However, recent adverse experiences with Washington's six demonstration projects in the 1990's have dampened the appetite of the private sector for risk-taking during the early development stages, under the current legal environment. The risks caused by legislative changes, an advisory vote and adverse court decisions were sobering to developers and the private sector transportation industry in general.

The institutional framework is key to the success of a public-private initiative of this scale. A project of this scope requires a team that is exclusively devoted to achieving its goals. A single purpose government entity would have the opportunity to create a structure and assemble a team that would be tailored to meeting the goal of creating an environmentally sensitive, efficient, safe and secure system that encompasses utilities and different modes of transportation. A single purpose entity also has greater potential to foster an entrepreneurial culture with an emphasis on quality and accountability.

One of the threshold issues facing any public-private partnership is the role the private partner may play in environmental review and assessment of the project under NEPA and SEPA. Even though a private entity may have a great deal of useful information that can contribute to the review and permitting process, a private sector partner cannot complete the NEPA document on its own. Actions that accelerate the review and permitting process can significantly increase private sector interest in financially viable projects.

Another legal issue relates to co-locating utilities and transportation infrastructure. FHWA and WSDOT utility accommodation policies restrict the type of proposed longitudinal installation in which utilities run directly underneath highway right of way. Longitudinal installations raise issues of access for maintenance of oil and gas pipelines, concerns over traffic disruption, and safety.

Finding – There are several legal and institutional issues that stand in the way of the feasibility of actually developing and operating the WCC. These include the need for more robust state legislation allowing public-private initiatives, and the need for a single purpose entity vested with the powers and authority necessary to oversee project planning, development, and administration while responding to environmental and social concerns. Other factors include limitations on the degree of involvement the private entity can have in the environmental process, and current restrictions on co-locating utilities and transportation infrastructure in the same corridor.

RECOMMENDATIONS

The entire WCC as envisioned and defined under current legislation is not feasible at this time. However, two sets of recommendations grew out of the study. The first set are actionable next steps directly related to the more feasible elements of the WCC:

Recommendation #1 – Reduce the Complexity, Scale and Length of the Corridor Strategy

The corridor as it is defined currently is too long, has too many components and is too complex. It is recommended that the length be reduced to the sections from I-90 south to the Chehalis area. The focus of the corridor should be on freight alone and should not include utilities, other than those associated with a conventional highway project.

Recommendation #2 – Pursue a Multimodal Freight Based Corridor Strategy

A comprehensive freight corridor strategy should be developed for Western Washington, and should be tied into the overall statewide freight strategy, as well as coordinated with the N-S freight strategies for Western Oregon, California and British Columbia.

Recommendation #3 – Conduct a Detailed Feasibility Analysis of a Public/Private Truck Freight Corridor

Conduct a detailed study focused on the feasibility of a public/private truck freight corridor between Seattle and Chehalis and possibly to Oregon. The study should be limited to a N-S corridor west of the Cascades where sufficient demand exists.

The other set of recommendations are broader and relate to the overall context of the WCC.

Recommendation #4 – Create More Robust Public-Private Legislation in Washington

Washington has a limited public-private authorization statute. The legislature should consider legislation that cures the shortcomings of the existing statute.

Recommendation #5 – Create a Single Entity to Coordinate Creation of State Significant Energy Corridors

While the concept of an energy corridor under the current WCC concept is not feasible, there is a need for a single entity responsible for both the development of a statewide energy infrastructure strategy and its implementation.

Recommendation #6 – Develop a Streamlined Environmental Review and Permitting Process

Create a new streamlined process that would serve to both expedite the review process, and to protect and enhance Washington State's natural environment. The improved review process should create an efficient and responsible review framework, offer practical solutions for facilitating project review, and incorporate existing streamlining processes that are under demonstration at the state level, in Washington and elsewhere, and at the federal level.